

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

DiGabriele, James A. (2009) An investigation in forensic accounting: private company valuation and related components of forensic accounting. PhD thesis, Middlesex University. [Thesis]

UNSPECIFIED

This version is available at: <https://eprints.mdx.ac.uk/10179/>

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

Middlesex University Research Repository:

an open access repository of
Middlesex University research

<http://eprints.mdx.ac.uk>

di Gabriele, James, 2009.
An Investigation in Forensic Accounting.
Available from Middlesex University's Research Repository.

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this thesis/research project are retained by the author and/or other copyright owners. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge. Any use of the thesis/research project for private study or research must be properly acknowledged with reference to the work's full bibliographic details.

This thesis/research project may not be reproduced in any format or medium, or extensive quotations taken from it, or its content changed in any way, without first obtaining permission in writing from the copyright holder(s).

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:
eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

An Investigation in Forensic Accounting: Private Company Valuation and Related Components of Forensic Accounting

**A thesis submitted to Middlesex University in partial fulfillment of the requirements for the
degree of Doctor of Philosophy by Public Works**

James A. DiGabriele, DPS, CPA/ABV/CFF, CFE, CFSA, FACFEI, Cr.FA, CVA

School of Business

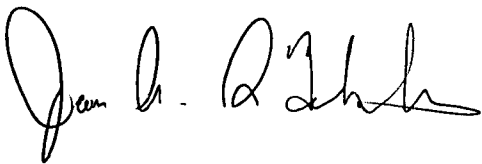
Middlesex University

September, 2009

Declaration

This is to certify that the work submitted in this thesis under the title; "*An Investigation in Forensic Accounting: Private Company Valuation and Related Components of Forensic Accounting*" is the result of original research.

Signed:

A handwritten signature in black ink, appearing to read "James A. DiGabriele". The signature is fluid and cursive, with the first name "James" being more legible than the last name "DiGabriele".

James A. DiGabriele

Acknowledgements

I wish to express my sincere appreciation to my supervisors, Alan Sangster and Dee Alwis. Their advice, guidance and patience provided throughout this journey were priceless.

My love and appreciation go to my wife, Lori, and my sons, Daniel, James, and John. I am blessed to have their encouragement and support.

Dedication

Teaching enthuses and empowers the instinctive curiosity of students by providing a challenge that is enhanced with positive reinforcement. As a teacher, it is my aim to provide the forum that produces such an environment. Ideally, I want students to feel complete academic freedom in the classroom that ultimately results in a different perspective as a result of taking my courses.

Central to my philosophy of teaching is to allow students to confront self imposed boundaries and embrace the unfamiliar challenge of fresh knowledge. This teaching attribute should inspire a student to grow intellectually while cultivating curiosity. I drive to coordinate my students' hunger for self determination, the university's specific academic goals, engaging classroom activities, and evidence that represents student achievement and performance.

My practice is to ultimately create an environment that is highly collaborative, participation-based, resource-rich, challenging and, most importantly equitable. Students need to be not only the focus of the learning experience, but also to be an inherent vehicle in the development of the course. Particularly in the School of Business, simply supplying the information is not sufficient. Developing their academic palate supplies the ability to not only "know" the information, but understand its value, utilize its applicability and relate it to its place in the "real world".

My philosophy is enveloped by the concept that education goals should be appropriate and achievable and that the progress of students towards them should be measurable. The goals should be appropriate to the students, the subject of study, the expectations of the university and

of the larger culture. Furthermore, it is a set goal to watch my students emerge in the subject of study from dependent individuals to well-equipped independent vehicles of the knowledge.

Most importantly, my goal across the classroom is learning that progresses across multiple dimensions; confidence and independence with the information coupled with the ability to think critically and deeply. Knowledge is a tool, and it is only as effective as the person who knows how to use it. My philosophy builds on providing students with the ability to equip their tool boxes and, more importantly, master the use of those tools. Therefore, understanding technical processes is just as important as the development of transferable learning and development skills. The responsibility of a teacher ultimately stretches far beyond the physical walls of the classroom.

I have been blessed to be surrounded from the beginning of my academic journey to the present date with scholars who have been mentors in my scholarly and teaching development. This thesis is dedicated to Aron Gottesman, John Dory, Rudy Jacob, Frank Aquilino, and Irene Douma.

Abstract

This composition presents a digest of research that investigates aspects of forensic accounting that shape its development from practice to an academic research perspective. This submission is based on six outputs that cover the period of 2006 through 2008. My research theme is, in the **context of valuations of privately held companies, identifying the skills of a forensic accountant, and how to use them**. This research not only breaks ground in the growing field of forensic accounting as it applies to private company valuation, but also lays a firm foundation and gives direction for further research. It provides insights into a growing sector of accounting for which there is a pressing need due to a dearth of research in the area.

Statistically significant results of Output 1 indicate that there are systematic trends in court preferences for valuation methods, and provides empirical evidence of best valuation choices for decision makers involved in proposition of methods to the courts. Study controls indicated that macroeconomic factors such as GDP and inflation are related to court choice of valuation methods for some types of cases. Specifically, market methods are preferred during higher economic growth and the capitalized earnings method is preferred during times of higher economic inflation.

Output 2 contributes to research by producing new knowledge with the understanding of the trend of investigating a potential insurance fraud in a routine business interruption.

Output 3 hypothesized that valuation approaches for closely held companies preferred by court vary by industry type. Income approaches were more popular than either asset or market approaches for manufacturing industries, and that the market approach had a higher proportion of

cases than asset approach for holding companies. Significant results for logistic regression analyses indicated that income valuation approaches had odds ratios approximately five times greater for manufacturing companies than other types of companies, which substantiated the results from the univariate analyses.

Output 4 found a statistically significant odds ratio of 6.27 indicating the matrimonial court preferred the capitalized earning method when inflation was high and involved a manufacturing company. In addition, the excess earning method was far more likely to be preferred in marital dissolution when the case did not involve a service company.

Output 5 defined the relevant skills of forensic accountants, and the perceived importance of these skills among three important stakeholders; forensic accountants, accounting academics, and users of forensic accounting services. These empirical findings are the first of its kind.

Output 6 presented the results of a moderated multiple regression analysis to show that, all else held equal, there exists a positive premium in the relative valuation of S corporations over C corporations in the period subsequent to the Tax Court rulings that started this debate. The model also allows for the moderation of this premium by varying different levels of a set of interaction variables. The results of the study indicate that the magnitude of the "S corporation premium" depends on the level of these variables.

My contribution to knowledge is presented in table format with the number of citations of each publication according to searches on Google Advanced Scholar, Lexis-Nexis, and a general World Wide Web search. In addition, since the World Wide Web has essentially created an

environment where information is simply a point and a click away, the relevance of manuscript downloads are an important indicator of the interest and contribution of a paper. There are recorded downloads of my publications from various publishing sources either selling academic articles online or simply providing working papers available for download. Included in table 1 and table 2 are the aggregate number of downloads and source, respectively.

Table of Contents	Page
Declaration	ii
Acknowledgements	iii
Dedication	iv
Abstract	vi
Table of Contents	ix
List of Tables	xi
Critical Overview	1
1. Introduction	1
1a Critical Reflection on the Research; Underlying Theory, Methodology and Traditions.	4
2. My Development as a Forensic Accountant, Educator, and Researcher.	7
2.1 Summary	11
3. The Published Works	12
3.1 Sub-Theme Number 1: The characteristics, responsibilities, and interactions of a forensic accountant: Outputs 2 and 5.	13
3.1a Output 2 The Pancake Palace: A Case Study in Business Interruption from the Defense Side. <i>Journal of Business Valuation and Economic Loss Analysis</i> , Volume 1, Number 1, Article 5, 2006, pp. 1-10	13
3.1b Output 5 An Empirical Investigation of the Relevant skills of Forensic Accountants. <i>Journal of Education for Business</i> , Volume 83, Number 6, 2008, pp. 331-338	23
3.1c Summary of Sub-Theme Number 1	27
3.2 Sub-Theme Number 2: Valuation in the Courts: Outputs 1, 3 and 4.	28
3.2a Output 1 An Empirical Walk Down Valuation Way: Are the Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and the Level of Court. <i>Journal of Legal Economics</i> , Volume 13, Number 3, 2006, pp. 39-64	28

Table of Contents (Continued)		Page
3.2b	Output 3 Do Court Preferences for Valuation Approaches of Closely Held Companies Vary by Industry? <i>Journal of Business Valuation and Economic Loss Analysis</i> , Volume 2, Number 1, Article 5, 2007, pp. 1-20.	32
3.2c	Output 4 To Have and To Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court. <i>Journal of Forensic Accounting</i> , Volume 8, Number 1 & 2, 2007, pp. 397-408.	35
3.2d	Summary of Sub-Theme Number 2	39
3.3	Sub-Theme Number 3: Valuation considerations as relates to type of corporation: Output 6.	41
3.3a	Output 6 The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations. <i>Accounting Horizons</i> , Volume 22, Number 4, 2008, pp. 415-424	41
3.3b	Summary of Sub-Theme Number 3	49
4	Concluding Statement	50
5	References	60
6	List of Total Publications and Presentations	62
7	Completed Submitted Publications	68
7.1	List of Submitted Publications	68

List of Tables

	<u>Page</u>
1 Form of Output	50
2 Summary of the Contributions to Knowledge, Citations and Downloads of the 6 Outputs	52

Critical Overview

1. Introduction

The core purpose of the six works included in this **thesis was to investigate the valuation of private companies, identify the skills of a forensic accountant and, identify how to use them.** The most obvious reason this process is innately difficult is that there is no ready market for shares or interests of privates companies. Experts in forensic accounting are essential for unbiased valuation opinions in an environment that is besieged with the agendas of litigants and attorneys. The role of being a forensic accountant requires an investigative mindset. My research journey as a result of these six works has contributed to the discipline forensic accounting by illustrating that court choices for valuation approaches and methods may have a systematic trend based upon the level of court, type of case, and industry. This information is of importance to academics teaching the discipline of forensic accounting because this knowledge is critical for the successful student outcomes as they enter the profession. This research presents:

- court choices for valuation approaches and methods may have a systematic trend based upon the level of court, type of case, and industry. This information is of importance to academics teaching the discipline of forensic accounting because this knowledge is critical to the successful shift from student to forensic accounting practitioner. These empirical results are demonstrated in Output1, Output 3, and Output 4.
- the infusion of the forensic mindset into what would have otherwise been a benign investigation of an interruption of business. Teaching case studies in this area were not

available and Output 2 is the first its kind because it allows students to seek a completely different accounting perspective where the scope of thought is moved from a rule based pattern to philosophy that is broad.

- assisting educators in the development of forensic accounting curriculum by identifying the significant skills needed to be a forensic accountant. As courses and programs develop, the outcome of the curriculum is the obvious learning of a specific set of skills. Output 5 uses the results of a One-Way ANOVA to lead educators and students to the competencies that should be the result of forensic accounting curriculum.
- refining a debate that has been a source of intense criticism and confusion as a result of conflicting prior research, and the intractable nature of legal precedent in the area of asset pricing of private S Corporations¹. Students and educators will surely have a better understanding of this issue and how to resolve it as they utilize the findings in Output 6.

Forensic accounting is an emerging field gaining status within accounting that has a noble lineage. Forensic accounting can be defined as; *“the application of special skills in accounting, auditing, finance, quantitative methods, certain areas of the law and research, and investigative skills to collect, analyze, and evaluate evidential matter and to interpret and communicate findings in a consulting or expert witness capacity”* (Crumbley, Heitzger, and Smith 2007). My definition of forensic accounting explains it more succinctly; *forensic accounting is the merger of accounting, economics and finance with an investigative skill set in a legal setting where the role culminates as either a consultant or expert witness.*

¹ S Corporations are corporations with one level of taxation.

Due to the need for forensic accounting professionals, research in the field of forensic accounting is growing. In this thesis, I present a theme of work comprising of six peer reviewed publications for the period of 2006 through 2008. This body of work presents empirical findings identifying the skills of a forensic accountant and identifying how to use them. This research specializes in the area of forensic accounting as it relates to private valuation, a very under-represented segment of the current literature. Information contributed from this research will guide the academic community in preparation of course content, degree/certification requirements, and related components of pedagogy. Important to this research is not only the investigation of traits and skills required and used by forensic accounting professionals, but also the role of forensic accounting as relates to concerns of private company valuation due to the mounting litigation that occurs in areas such as; matrimonial disputes, shareholder/partner disagreements, and commercial damages including business interruption with the potential for business value loss.

In the spirit of strategic management theory, my research has been the beneficiary of first mover advantages as both the profession and the academic discipline have developed during the interval of my scholarly growth (Lieberman and Montgomery, 1998). A significant portion of this body of work was the result of empirical experience obtained during years of providing expert testimony in Federal and State courts in the United States as well as, evolving in my academic career. Research and synthesis of secondary sources was performed extensively over the years of this work, and contributed to formation of theory and direction of study.

1a. Critical Reflection on the Research; Underlying Theory, Methodology and Traditions.

The research presented in this context statement has utilized the positivist research paradigm. The positivist model emphasizes a viewpoint that only true knowledge is that which is based on actual sense experience. The results presented in the published works illustrate sense observations through empirical analysis while explaining a particular phenomenon within the parameters of principles. Within the body of the works included in this context statement, the achievement of these results relied on data provided to make direct observation to obtain positive evidence based upon intellectual experience. Obtaining mathematical evidence regarding the skills needed for a forensic accountant conveys and validates the knowledge obtained from the results. In the same, manner a multiple or logistic regression model demonstrates particular choices of valuation methods in a court of law, or a premium associated with a particular organizational form.

Considering the research presented was focused on forensic accounting in the context of the valuation of private companies, identify the skills of a forensic accountant and, identify how to use them, additional theoretical reflection could have enhanced the findings and motivation of the research. For example; forensic accountants in their role as expert witnesses have a fiduciary responsibility to remain unbiased in their findings. Although experts are retained by attorneys or clients directly, an expert's primary responsibility is to assist the Court who is a Trier of Fact. Agency theory could have been used as a motivating theory as the relationship of the forensic accountant to the Courts can be analogous to the problems associated with agency theory. However, the construct of agency theory is focused on processes of how a principal can control

the agent through incentive schemes, employment contracts, and risk sharing. Since the Court is actually the principal and not responsible to compensate the expert, this disconnect is the reason why I have chosen to continue the path of the research tradition within the framework of previous literature.

Although not explicit, it may be said that contingency theory has made an intuitive contribution to the thinking development included in the body of work in this context statement. Industry type is common variable within contingency theory studies. This variable appears in at least two-thirds of the works presented. Contingency theory acknowledges that there is no one best way to organize however; there is a possibility for an optimum solution for specific, identifiable and codable situations. “Unfortunately, most of the contingency theories are stated so ambiguously that it is difficult to derive specific, testable propositions. In general, the research suffers from lack of accurate measures and reliance on weak research designs (Yukl, 2006).”

In the current stream of research presented in this context statement I have chosen to remain traditional. Tradition in this type of research continues to build upon previous literature that is specific to this stream. Methodologies such as ordinary least squares regression analysis are similar but, are differentiated by building a perceived better or different model. This statement is further corroborated with the works presented in this thesis. Output 6 is a perfect example. Previous literature continued to use the traditional approach to the problem of valuation issues associated with S corporations by building ordinary least square regression models. My methodological approach augmented previous attempts to another level by using interaction variables that considered the possibility that the change in the dependent variable price, as one of the independent variables changes, depends on the value of another independent variable. Hence,

the interaction variables were included in a model that was never considered in previous research.

The statistical methodologies adopted and applied to the remaining outputs were also consistent with tradition. Outputs 1, 3, and 4 used logistic regression models to deal with a binary dependant variable. When mean differences were the focal point of the research an ANOVA was used as in output 5. A moderated multiple regression analysis was useful in the findings for output 6.

2. My Development as a Forensic Accountant, Educator, and Researcher.

The pursuit of knowledge has been an evident element of the fiber of my being. In 1986, the foundation of my development began when I became an Internal Revenue Service (IRS) Agent for the Department of the United States Treasury. The IRS has a storied past as it relates to forensic accounting. The IRS developed many of the forensic techniques used to detect tax evaders. One of the first income tax evasion cases uncovered by forensic accountants was that of the infamous gangster, Al Capone (McGuire and Jost, 2006). It is customary practice for the IRS to train each agent in an investigative, skeptical manner. Investigations on this level involved critical thinking skills to develop provable hypotheses essential for a successful outcome. These proficiencies included research, investigation, indirect reconstruction of accounting records, brainstorming with colleagues, and development of a report suitable for a court of law.

In the early to mid-1990s, the field of forensic accounting started to formally shape in the United States and various professional certifications started to enter the market place. In addition to formal education it was now expected professionals in the field to possess additional professional certificates signifying their expertise. The first professional certificate I attained specifically in the forensic accounting field was the Certified Fraud Examiner in 1995.

In 2000, the American College of Forensic Examiners Institute introduced the professional certificate, Certified Forensic Accountant. In August of 2001, I passed the exam to earn the designation. During this period I again revisited the idea of a PhD. New School University was the target. Again was told it is only for full time students. As I developed an extremely good relationship with the admissions director he directed me to a doctoral program

that may have suited my preference. Pace University offered a Doctor of Professional Studies (DPS) degree and it was part time. As a result, I enrolled in 2002.

This was a defining period in my scholarly and professional development; as I attained several additional professional certifications, developed and taught courses for the National Association of Forensic Accountants, testified in Federal and State courts, published in peer reviewed journals, and presented in various venues.

During my doctoral journey at Pace University many intellectual changes occurred. Although, the program is viewed as a hybrid professional/applied research doctorate, all of the faculty members teaching are traditional PhDs. As a result, the collaborative integration of the practitioner and scholar are merged; wonderful research ideas are generated with a thought level I had not experienced to that point. Interacting in the academic world was appealing and comfortable for me. I started to publish with a professor during my second year in the program. The challenge to generate research questions was exciting to me and attractive.

As my doctoral journey continued through all of the traditional phases of comprehensive exams, a dissertation proposal defense, and ultimately, a dissertation defense, the exchange of ideas of my life after the doctoral program with my chair and committee seemed to occur more frequently than I anticipated. During this period in the United States, the Enron collapse was unfolding along with the largest accounting fraud and bankruptcy in the history of the United States; WorldCom. In addition, the accounting profession was being redefined by way of regulation; the Sarbanes-Oxley Act of 2002, and The Public Company Accounting Oversight Board. The American Institute of Certified Public Accountants also started to call for more forensic accounting procedures in the audit process. The members of my dissertation committee

were all PhD academics, and immediately recognized a void in the current business curriculum. The void as they viewed it was that forensic accounting should be taught at the University level.

In 2005, I applied to teach as an adjunct professor at Montclair State University. My first course was Fundamentals of Managerial Accounting and started in the Spring of 2006. As a teaching tool, I designed the course to conclude with a group project. I initially received this idea from my friend, and colleague Larry Crumbley, who is a Professor at Louisiana State University, and the editor of the *Journal of Forensic Accounting*. Dr. Crumbley did not use this technique on undergraduates at the level I did nor did he implement complete presentation creativity I employed.

In this managerial accounting course, I asked the students to work in groups to create a story on any topic covered in the course. Since the course merged management and accounting, the ethical conflicts and motivation for management to control certain outcomes to their benefit were emphasized during the semester. The story they produced had to include how and where the main character recognizes and solves a management fraud, a management manipulation or any type of financial manipulation that is created for a manager's personal benefit within a topic covered in the course.

The groups were given complete creativity to develop and present their story. The range of presentations were from a production (play) of students working in a restaurant where the manager was stealing funds while manipulating the accounting records to films of managerial fraud scenarios with the students as characters.

As the faculty of the Accounting, Law and Taxation Department observed my class, reviewed my student evaluations, and desired to add a Forensic Accounting course at the

graduate level, I was asked to join the faculty on a full-time basis. My first call of action was to develop a Forensic Accounting course for inclusion in the Masters of Business Administration and Master of Science Accounting. I developed the course and enhanced the prior course in Fraud Examination; and I currently teach both courses at the graduate level. Similar creative teaching techniques were implemented in both graduate courses and Fundamentals of Financial Accounting.

Due to the dearth of research in the area of forensic accounting I included my research in the classroom. The students are asked to critique my manuscripts and simply provide the answer to the question; “so what? – Why is this research important to forensic accounting?” All Outputs 1 through 6, are included in both courses.

My journey to academia has been nontraditional. However, my research has been embraced as forensic accounting curricula populate universities in the United States. The requests from practitioner and academic organizations to present my research are currently in broad demand. Recent corroborating evidence includes requests for presentations from the New York Society of Certified Public Accountants, and the academic track of the National Association of Certified Valuation Analysts national conference. The importance of forensic accounting in the United States as an academic discipline can be further corroborated as the American Accounting Association has created the section; Forensic and Investigative Accounting. **Due to the exposure of my research I was invited to be the Mid-Atlantic Director.** The current need for research in this discipline is timely. The future need is pressing.

2.1 Summary

I refer to my journey as non-traditional, I also believe it was necessary for the progression of my professional and scholarly pursuits. Altruistically, forensic accounting has allowed me to be able to participate in unique experiences. For example; I was selected as a pro-bono participant to assist the families of the victims of the September 11, 2001 attacks in the calculation of their economic damages as a result of the life time loss of income from the spouse who was a victim.

In addition, subsequent to the period accounting frauds in the United States (Enron, WorldCom etc.), there was a pandemic of malpractice litigation against accountants. During the two year period of 2002-2004, I served as a pro-bono accounting expert in frivolous malpractice suits against Certified Public Accountants. The effect of all these events directly contributed to my changing perspectives and priorities.

3. The Published Works

The six papers included in this thesis contribute to the overall theme of forensic accounting, and related components such as the skills needed, ethics, and private company valuation. The six papers can be further classified into 3 sub-themes of:

1. The characteristics, responsibilities, and interactions of a forensic accountant: Outputs 2 and, 5.
2. Valuation in the Courts: Outputs 1, 3, and 4.
3. Valuation considerations as relates to type of corporation: Output 6.

The papers will be presented by sub-theme as indicated above. The outputs within the sub-themes will remain in chronological order. This facilitates the presentation of the body of my research in a coordinated manner.

3.1 Sub-Theme Number 1: The characteristics, responsibilities, and interactions of a forensic accountant: Outputs 2 and 5.

3.1a: Output 2

The Pancake Palace: A Case Study in Business Interruption from the Defense Side.,
Journal of Business Valuation and Economic Loss Analysis, Volume 1, Number 1,
Article 5, 2006, pp. 1-10.

This output was published in the *Journal of Business Valuation and Economic Loss Analysis*. This is the pioneering and only double blind peer-reviewed academic journal in the field of business valuation studies. Scholars, accountants, attorneys, financial analysts, and others involved in valuation processes make use of the information presented in the journal. I am currently an editorial board member of the journal.

Motivation

Output 2 presents a case study in forensic accounting techniques of valuation. The case study illustrated the difficulties that can occur from business interruption (a loss due to fire) of a closely held company when the insured is represented by a public adjuster. Namely, the repercussions of opportunistic bias created by the compensation of a public adjuster, when motivated by the dollar value of the casualty claim. Public adjusters typically charge 10-15% of a claim for their fee and can be motivated by profit. Claimants may also desire inflated valuation in order to create profit, improve their business standing, or to cover the cost of hiring the public adjuster.

This output presents the first case study in loss valuation as it relates to the forensic accounting field. In addition to furthering the knowledge base in the available literature, this output presents a concise process which can be utilized by forensic accountants in practice, and demonstrates an applied procedure of forensic accounting techniques to a common occurrence in practice (loss valuation) which is extremely useful for training students in the classroom setting.

The motivation for this case study lies in the implicit theory of combining components of the fraud triangle (Cressey, 1953) and the use of professional skepticism in forensic accounting. The fraud triangle embodies three components; pressure, opportunity, and rationalization. Pressure is derived from a financial issue that cannot be solved in a lawful manner. Opportunity surfaces when a fraudster recognizes a way to use their position of trust or power to obtain financial gain. Rationalization is the process where a fraudster justifies the crime to themselves in a way that makes it acceptable or justifiable. In the case as illustrated in the Pancake Palace, a claimant of an insurance loss may incorporate some of the characteristics of the fraud triangle to motivate a higher recovery. In addition, representatives of the insured are compensated based upon the value of the claim. This further supports the possibility of fraud in this type of environment. The natural intuition of a forensic accountant involved in such an environment is to be cognizant of these factors using degrees of professional skepticism. This concept may be defined as an attitude that includes a questioning mind and critical assessment of evidence (Golden *et al*, 2005).

Professional skepticism and fraud, from an accounting perspective has a lengthy saga of debate. Dating back to the Lawrence Dicksee 1892 textbook “Auditing; A Practical Manual

for Auditors” (the authorized American Edition was published in 1905) which lists the objective of an audit is “threefold:”1.The detection of fraud; 2.The detection of technical errors.3.The detection of errors in principle.

Dicksee (1905) goes on to emphasize that fraud detection is the most important component of the auditor’s job. In addition, the author proclaims that the auditor who is able to find fraud is a better man than the auditor who does not find fraud.

The integration of professional skepticism and uncovering fraud has also been covered from an internal auditing perspective. Fulerton and Durtschi, (2004), examined whether higher levels of skepticism are correlated with behaviors that might enable internal auditors to better detect fraud. Audit standards have always required that auditors exercise some level of professional skepticism. Recent standards go further and now require auditors to increase their skepticism. It is implicit in these requirements, that if an auditor is more skeptical about the possibility of fraud existing within a firm, fraud detection will improve.

Considering the intersection of auditing and forensic accounting lies at the crossroads of professional skepticism(Crumbley et al, 2005), the methodological considerations in the application of forensic techniques such as the calculation of a business interruption value; (also known as lost profits) has been largely ignored in the literature.

Forensic accountants typically use one or more of the following methodologies for calculating business interruption losses (Crumbley et al, 2005; Gaughan, 2004):

1. The Before-and-After Method
2. The Comparable Method

3. The "But For" Method

4. The Breach of Contract Method

The Before-and-After Method utilizes the concept of a timeline of profits. This method considers the sales growth before the act and compares it to the sales growth after the act. Under the Before-and-After Method, the profits as measured by continuing expenses plus net income or net loss, from the period affected by the alleged damaging acts are compared with either the pre-damage profits and/or the post-damage affect profits to calculate the amount of lost profits (Crumbley *et al*, 2005; Gaughan, 2004).

Under the Comparable Method, the forensic accountant identifies companies or industries that are comparable to the company which suffered the alleged damaging acts. The forensic accountant then projects the company's profits using the performance of the comparable companies or industries as the basis for the projection. This method may be used when there is no historical information available for a company (Crumbley *et al*, 2005;, Gaughan, 2004).

The "But For" Method is generally based upon a financial model using assumptions about income and expenses. The theory behind this method is the estimated loss of income is the difference between estimated profits and actual profits "But for" the actions of the defendant (Crumbley *et al*, 2005, Gaughan, 2004).

The Breach of Contract Method is used when the contract in question contains specific provisions for calculating liquidated and other damages in event of a breach. The forensic accountant will tailor the analysis to follow the specific contract terms (Crumbley *et al*, 2005; Gaughan, 2004).

Each of the above methods of investigation is applied in accordance to the specific circumstances enveloped within each case. The before and after method relies on a timeline of profits concept by using sales growth as the primary driver for projecting the loss. When considering the before and after method there is not a voluminous data requirement. This method may be applied with one or two years of sales growth data making its simplicity an attractive choice.

The comparable is generally practical when projecting a loss for a new company with limited financial history. Benchmark data collected from comparable companies serves as the foundation for a projection of loss in this type of case. It would be improper to employ this method as a complimentary method to a company with financial history because this would imply homogeneity and remove the potential shortcomings of management thereby creating a potential for a larger loss recovery.

The “but for” method is a data driven method that requires relevant historical financial information necessary to create a statistical model such as regression analysis to project the loss. Forensic accountants generally recommend that the most recent three to five years historical operating results on monthly basis be used to project growth and profits. In many circumstances for smaller companies this data is not readily available due to either the lack of maintaining proper accounting records or they were destroyed in the a fire or flood loss leaving tax returns as the only records available. For these reasons many times forensic accountants default to the “before and after” method.

When the breach of contract method is applied to a loss projection the terms and assumptions are usually determined by a prior agreement. For example; if a sales agreement

between two parties is breached the damages may be contractually stipulated plus additional costs.

The critical omission in the literature on calculating these types of damages estimates is the forensic due diligence which encompasses a degree of professional skepticism combined with the consideration of components of the fraud triangle. The Pancake Palace case study introduces these forensic techniques to traditional methodology of determining such a loss, and illustrated a material difference in the loss recovery when using the before and after methodology. The introduction of this new information has created an incremental contribution to knowledge base on this topic. This methodology can be used across all of the approaches used to calculate lost profits.

When judging a theoretical contribution within the framework of Whetton (1989) a straightforward theory should include description and explanation. Additionally, several key questions should be answered when judging if a manuscript makes a contribution to theory.

What is new about paper? Does the theory included in the research affect change practice in this area? Is the topic timely and of interest to researchers (Whetton, 1989)?

The research presented in the Pancake Palace case study fills the void in prior literature on the topic of business interruption (lost profits) by introducing additional forensic accounting techniques that should be considered in these types of cases. For example; insurance contracts explicitly reimburse a claimant for expenses that continue during the loss period. With competing motivations on both sides, the task for the forensic accountant is to apply a methodology that includes all variables and quantitatively calculate the correct value,

regardless of the mechanics. The Pancake Palace case study provides a clear and new approach to verifying if “key” employees actually continued to be compensated during the loss period. This example broadens support for the theory that when considering components of the fraud triangle combined with a degree of professional skepticism the potential for uncovering fraud is increased by corroborating additional variables in the calculation of a business interruption recovery.

The forensic approach incorporated within the paper provides a changing perspective of the practice of forensic accounting. This reflection has made it apparent that although the mechanical calculation techniques are a necessary skill of a forensic accountant, consideration of additional qualitative variables are important to avoid misspecification of the value of the loss. This is regardless of which method of calculation is employed.

Forensic accounting is a topic of interest to many current researchers due to the changing social, regulatory and economic environment. Results of a recent study indicate that the demand for and interest in forensic accounting is expected to continue to increase and more universities are planning to provide forensic accounting education. (Rezaee *et al*, 2006). The contribution of the Pancake Palace case study is further enhanced by these claims and is further supported by the compelling evidence, and logical arguments within the paper.

The Innovation

This case may be considered autobiographical. While on a consulting assignment, I lived this situation. Forensics techniques in these types of cases were a rarity during this particular time. My previous background as an Internal Revenue Agent provided the foundation to figure out the areas of potential misrepresentation. For example, corroborating evidence retrieved from Federal and State governments were not a customary part of this type of investigation in the past. The benefits associated with the forensic techniques employed in the case have made the market participants aware of fraud that can be easily found when using savvy. The case has been extensively used in my Fraud Examination and Forensic Accounting classes and has provided students with some eye opening moments.

The Findings

In this case study, the public adjuster calculated an adjustment of increased gross revenue of \$1.5 million based on an accounting error noted on the corporate income tax return. This adjustment resulted in a higher historical growth rate for lost sales projected during the loss period. Using simple percentages, the impact of the gross revenue adjustment for the period immediately preceding the loss was to change the growth rate from a negative (3.38) % to 17.29%. Additionally, the adjustment caused an increase in net income as a percentage of sales creating the potential for a greater business interruption recovery. Other compensations were noted as continuing expenses for officer income, employee salaries, rent expense, and holiday bonuses. The public adjuster reported the business interruption loss as \$3,520,337.

The forensic accountant, working for the defense, noted immediately that the revenue adjustment was visibly odd, and a large value of profit which represented over 20% of gross revenue. A request for an amended tax return was performed, as well as a request for the IRS transcript for the filing. In this case the gross revenue adjustment was not substantiated. Officer's compensation was not existent before the loss due to a slowing of business, and was removed from consideration. A review of prior payroll tax reports and journals was performed, indicating that loss of wages for key employees should not be included in the adjustment, because these workers were receiving unemployment benefits. An investigation into lease terms indicated that only a pro-rata share of the operating expenses of the strip mall were required to be paid by the claimant, rather than the full amount of rent. Presentation of an altered check for proof of payment of a holiday bonus raised the curiosity of the forensic accountant, who delved deeper into banking accounts of the parties involved to trace money flow. It was determined that the check was actually deposited into an account of a food supplier. Findings from the forensic accountant's diligence of inquiry and financial legwork indicated that the business interruption loss was highly inflated by the public adjuster. The forensic accountant valued the loss at \$600,751. This figure was a \$2,919,586 decrease in the total loss reported by the public adjuster.

Summary

A case like the one presented in Output 2 is unique in an academic setting. Business interruption losses presented by claimants and their adjusters can be inflated and, at times, fraudulent. Forensic accountants, utilized by insurance companies and defense teams, bring their unique talents and skill sets to cases of interruption loss. Published case studies such as

this one, which detail the processes of forensic accountants in investigating valuation claims, are lacking in the literature. This case study is useful knowledge for application in academic instruction. Published case studies of this nature are rare and in much demand by the academic community teaching forensic accounting.

New knowledge can be created through research by focusing on solving problems or answer defined research questions. This case contributes to research by producing new knowledge with the understanding of the trend of investigating a potential insurance fraud in a routine business interruption. Additionally, new knowledge has been created by the application of techniques illustrated in this case in the form of illustration, explanation, and description. Output 2 has been used by academics teaching forensic accounting in the United States. This is claim is further corroborated by the 217 downloads to date for this paper. I also presented this case study to a fraud examination class at a local university MBA class.

3.1b: Output 5

An Empirical Investigation of the Relevant Skills of Forensic Accountants., *Journal of Education for Business*, Volume 83, Number 6, 2008, pp. 331-338.

Output 5 appeared in the *Journal of Education for Business*, which features research articles in accounting, communications, economics, finance, information systems, information technology, management, management information systems (MIS), marketing, and emerging disciplines. Published articles review and report on successful innovations and practice, propose theoretical formulations, or advocate positions on important and controversial issues, with an emphasis on issues of significance affecting education for business, including curriculum development, instruction, and evaluation of educational programs in traditional and nontraditional settings. Articles are selected for publication through a double blind peer-review process.

Motivation

As Forensic Accounting made its way through the natural life cycle, there were many suggestions and innuendo of the expertise needed in the discipline of forensic accounting but, there was a void in the empirical evidence. I endeavored in Output 5 to examine the perceived relevant skills of forensic accountants as viewed by 1) forensic accountant practitioners, 2) accounting academics, and 3) end-users of forensic accounting services.

Further motivation was as forensic accounting became fashionable in academia, there was a lack of emphasis on the skill outcome that the education should emphasize.

The Innovation

I compiled a dataset and developed an original survey instrument to address the questions posed in Output 5. The dataset was compiled with members of the three disciplines under study as follows: (a) accounting academics, who were defined as faculty members of accounting departments of various universities nationwide; (b) forensic accounting practitioners, whose names were retrieved from several membership databases including The National Association of Certified Valuation Analysts (NACVA), The American Board of Forensic Accounting (ABFA), The Association of Certified Fraud Examiners (ACFE), and the American Institute of Certified Public Accountants, business valuation and forensic and litigation services section (AICPA-BVFLS); and (c) end-users of forensic accounting services, whose names were retrieved via a Google search and study recruitment of attorneys practicing commercial litigation, matrimonial law, and damages.

The research involved a nationwide survey. The survey was developed, pre-tested, and sent via e-mail to a total sample of 1,500 stakeholders, 500 within each of the three groups. A total of 252 individuals completed and returned the survey (response rate of 16.8%). Of those who responded, 78 (31.0%) were academicians, 102 (40.5%) were practitioners, and 72 (28.6%) were end-users.

The survey instrument I developed included nine Likert-scaled items that were deemed by my prior research to be important skills of a forensic accountant. Principal components analysis (PCA) was performed on the results of the returned surveys to examine the underlying structure of the nine competencies. Two component constructs emerged from the PCA and were labeled (a) knowledge and ability, and (b) performance.

Inferential analysis investigated the three stakeholder groups for differences on mean responses for each of the nine competency items. Two additional analyses were performed to investigate stakeholder group differences on the two competency constructs of knowledge and ability, and performance. The implications of the additional analysis are that educators may segregate course content on the basis of these two distinct areas.

The Findings

- All three stakeholder groups viewed *deductive analysis* as important, with the mean values for the skill rated in the top two skills for all three stakeholder groups.
- Practitioners and academics were in agreement on the importance of *critical thinking, unstructured problem solving, investigative flexibility, analytical proficiency, and legal knowledge*.
- There were no significant differences between the stakeholder groups on the skills of *oral communication, written communication, or composure*.

Summary

Output 5 was the first empirical paper to identify the relevant competencies of a forensic accountant and augmented the existing practitioner literature. This paper further defined the perceived importance of these skills among a range of the population including those in academia and practice. The information presented in this study can be utilized by educators to objectively guide development of forensic accounting curricula toward achievement of outcomes related to relevant skills. Additionally, stakeholders such as bankers and corporate CEOs can make use of the information in evaluating best practices and personnel for desired outcomes.

Consistent with the theme of my research, this study identified the skills of a forensic accountant. The Education Resource Information Center (EDIC), sponsored by the United States Department of Education, has recognized Output 5 as a valuable piece of educational literature in the discipline of forensic accounting. The manuscript is included searchable database of EDIC that is specifically aimed toward users that include education researchers, teachers, librarians, administrators, education policymakers, instructors and students in teacher-preparation programs.

3.1c: Summary of Sub-Theme Number 1:

The contribution of the research presented in this sub-theme has provided necessary guidance **on identifying the skills of a forensic accountant and identifying how to apply those skills within forensic accounting, and ultimately how to use them in an application setting.** This stream of research is the first of its kind.

3.2 Sub-Theme Number 2: Valuation in the Courts: Outputs 1, 3 and 4.

3.2a: Output 1

An Empirical Walk Down Valuation Way: Are the Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and Level of Court?, *Journal of Legal Economics*, Volume 13, Number 3, 2006, pp. 39-64.

This output was published in the *Journal of Legal Economics*, a double blind refereed journal published by the American Academy of Economic and Financial Experts.

Motivation

This study further investigated court determinations in cases of valuation by examining if the latitude of the court in issues related to valuation results in court preferences for specific valuation methods. At the time of publication, a study of this type had not been previously discussed in the literature. Prior studies on valuation and the courts focused on prediction accuracy of valuation methods, analysis of market comparables in valuation of closely held companies in the Tax Court, and studies on specific valuation methods presented to the court and accepted as evidence in valuation cases (Leclair, 1990; Beatty, Riffe, and Thompson, 1999). This output enriched the knowledge base by probing into possible differences in court chosen valuation methods according to both (1) the type of case presented, and (2) the hierarchy of court (State or Federal).

The Innovation

The data used was extracted from actual courts cases. Most researchers refrain from this type of data extraction due to the labor intensive nature of sectoring each variable. Included for analysis were cases relating to closely held companies at both the State level (i.e., matrimonial dissolution and shareholder disputes) and the Federal level (i.e., estate tax, gift tax, income tax, and bankruptcy). Independent variables included industry type, level of court, and type of case (nine categories). The state of the economy, annual inflation rate, and size of company were included as controls. The dependent outcome was type of valuation approach/method used, grouped into three categories (a) asset approach; (b) income approach, and (c) market approach. Controls and independent variables were further examined with logistic regression equations on outcomes according to valuation method. The unique aspect of this research is its merger of accounting, finance, economics, and law. The broad approach may be looked at as a universal research methodology that is of interest to wider audience. This article has been cited by a Journal published at the prestigious University of Pennsylvania.

The Findings

- A market approach to valuation was preferred to an asset approach in estate cases, dissenting stockholder cases, and appraisal cases.
- For Federal courts, gift tax cases were significant for an income approach over both an asset approach and a market approach.
- For U.S. Tax Courts, market and income approaches were preferred over asset approaches.

- State courts of appeal preferred market and asset approaches over income approaches.
- Courts of Chancery preferred market and income approaches over asset approaches.
- The capitalized earning method was more likely to be preferred by the courts when (a) inflation was high, (b) the case involved a manufacturing company, and (c) the type of case was a marital dissolution case.
- The income method was more likely to more likely to be preferred by the courts when cases involved a manufacturing company or an estate.
- When a Federal case was not an estate case, the discounted cash method was preferred.
- The excess earnings method was preferred when the case involved a marital dissolution.
- Increases in GDP were associated with preference for the market method.
- When large companies were valued, the EBITDA multiple method was preferred.

Summary

The findings from this output implied that there are systematic trends in court preferences for valuation methods, and provided empirical evidence of the optimum valuation choices for decision makers involved in proposition of methods to the courts. Study controls indicated that macroeconomic factors such as GDP and inflation are related to court choice of valuation methods for some types of cases. Specifically, market methods are preferred during higher economic growth and the capitalized earnings method is preferred during times of higher

economic inflation. A limitation in the data was that for some courts the frequencies were too low to draw a statistical significance.

In addition to expanding the literature base, the findings from this output are used in my graduate level classes and are pertinent to courses in academic disciplines of accounting, economics, and finance. **I was invited to present the findings from this output to the New Jersey Society of Certified Public Accountants in May of 2007. Additionally, this research maintained the goal of identifying the skills of a forensic accountant and identifying how to use them.**

3.2b: Output 3

Do Court Preferences for Valuation Approaches of Closely Held Companies Vary by Industry?, *Journal of Business Valuation and Economic Loss Analysis*, Volume 2, Number 1, Article 5 2007, pp. 1-20.

This output was published in the *Journal of Business Valuation and Economic Loss Analysis*. This is the pioneering and only double blind peer-reviewed academic journal in the field of business valuation studies. Scholars, accountants, attorneys, financial analysts, and others involved in valuation processes make use of the information presented in the journal. I am currently an editorial board member of the journal.

Motivation

Output 3 was motivated by my previous research into valuation approaches and court preferences. I wished to further delve into and define my research to investigate whether the preferences for valuation approaches utilized by the courts varied according to industry type, with a focus on closely held companies.

Valuation of closely held companies is one of the most important issues in accounting, corporate finance, and economics, because of the predominance of closed corporations in the United States. Family-owned companies contribute to between 80-90% of the nation's wealth (Astrachan and Shanker, 2003). The information provided in this study assists in curbing the contingency cost of litigation for closely held companies by providing guidance on selection of the valuation strategy as a function of industry type.

Guidance based on this research mitigates problems in valuation outcomes for areas of estate and gift tax settlements, divorce, IRS disputes, mergers and acquisitions, lending policy, buyouts, and employee stock ownership plans. The results of this study can direct academia in formulation of curriculum and lesson plans. Practitioners of law, investment bankers, and other end-users can also benefit from the knowledge obtained in this study.

This study is novel in that it investigates the valuation methods presented to the Court according to industry classification.

The Innovation

The court cases were grouped according to valuation method into three categories; (a) income or fundamental value methods (income approach), (b) market based/relative value methods (market approach), and (c) asset-based methods (asset approach). Firms in the study were classified by industry type using Standard Industry Classification codes (SIC). The industry types were aggregated into four industry type groups (a) manufacturing, (b) services, (c) holding company, and (d) other (businesses not easily identified as belonging to groups a, b, or c).

Univariate tests of independent samples t-tests and Wilcoxon tests were used to investigate proportional mean differences in the valuation approaches preferred by the courts as a function of industry. Multivariate tests via logistic regression were then performed to examine court preferences for various valuation approaches and methods.

The Findings

- Income approaches were more popular than either asset or market approaches for manufacturing industries.
- The market approach had a higher proportion of cases than asset approach for holding companies.
- Income valuation approaches were approximately five times more likely to be preferred for manufacturing companies than other types of companies.

Summary

The findings of Output 3 suggest in the analyses of the three broad valuation approaches, industry type was not associated with use of an asset or market approach. However, the findings did indicate that income approaches were approximately five times more likely to be preferred for manufacturing companies than other industry types.

The findings of this output filled a gap in academic perspectives for guidance in valuation strategy as relates to industry type. Additionally, the findings of this paper were presented to the New Jersey Society of Certified Public Accountants in May 2007. Guidance derived from Output 3 is also pertinent to the practice of forensic accounting: Knowing beforehand the valuation method favored by the Court can directly reduce contingency costs of litigation. **The third party interest in this paper can documented by two facts; 1) total downloads of 249; 2) the manuscript was listed as one of the top ten papers in the Journal of Business Valuation and Economics Loss Analysis for approximately 18 months.**

3.2c: Output 4

To Have and To Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court., *Journal of Forensic Accounting*, Volume 8, Number 1 & 2, 2007, pp. 397-408.

Output 4 was published in the Journal of Forensic Accounting. This double blind peer reviewed journal is an independent international forum for the publication of research in methodologies and models of investigative and forensic accounting with an emphasis on practitioner-academic dialogue and collaboration. The journal has a worldwide audience and includes: academic researchers and educators specializing in forensic accounting; practicing forensic accountants; auditors and professional audit advisors; regulatory and standard setting participants, investment analysts and rating agencies; enforcement agents, process security specialists, and legal, tax, and insurance personnel.

Motivation

Output 4 investigated if preferences for valuation methods exist in the matrimonial courts. Court preferences for valuation type in matrimonial litigation are necessary to development of the literature in the forensic accounting and valuation of closely held corporations. Statistically speaking, modern marriages have the likelihood to fail fifty percent of the time (Galbraith 2003). Astrachan and Shanker (2003) contend that between 80% and 90% of the nation's wealth is held in private, family-owned companies.

Considering these staggering statistics, I undertook this research in order to provide empirical guidance for those involved in matrimonial law; litigants, attorneys, experts, financial

planners, and academics. Additionally, this research was motivated by expert behavior in providing valuation estimates causing the Court to provide their own valuation. Since Judges are not financial experts my theory was that in order to streamline litigation there could be trend in specific Court choices for valuation methods based on familiarity.

The Innovation

A series of statistical analyses were performed to investigate preferences of matrimonial courts for particular valuation methods. In order to further clarify the association between the chosen independent variables of industry type (operationalized as either manufacturing, service, or holding company), level of court (operationalized as State or Federal), and type of case (operationalized as either matrimonial or estate tax case) and the outcome of whether or not a particular valuation method was preferred, three control variables were also included in the analyses: 1) gross domestic product for the year of each case, 2) inflation rate for the year of each case, and 3) company size. Step-wise analyses were performed with the control variables entered into the statistical model initially, followed by the independent variables which were added to the model in the second step. This research provided much needed guidance in a high stakes, heavily litigated area. The article was recently cited in a forthcoming article in the *Journal of Legal Economics*.

The Findings

This study returned many statistically significant findings;

- There was significant preference of the matrimonial court for the excess earnings method over the income method.

- Each additional percentage point of inflation more than doubles the likelihood of court preference for the capitalized earning method.
- Cases involving a manufacturing company were almost three times as likely to result in a court preference for the capitalized earning method.
- Service company valuation cases were far less likely to have the excess earning method preferred by the court.
- The excess earning method was far more likely to be preferred in marital dissolution cases than other types of cases.
- Matrimonial courts were more likely to prefer the excess earnings method when the case did not involve a service company.

Summary

The research performed for Output 4 added much needed information to the knowledge base for specific valuation preferences in matrimonial courts. The information obtained in this study allows for precise decision making as relates to matrimonial court litigation. Applications of these findings allow parties involved in matrimonial litigation to make informed decisions involving valuation based not only on the type of court, but also on the type of industry involved in matrimonial disputes. The contribution of this research to the academic arena is also quite valuable. Lesson plans and course offerings with a focus on matrimonial litigation can be made much more succinct by giving those providing instruction solid empirical findings to present to students.

The direction of future research in this topic may consider focusing in the direction of various valuation methods in the matrimonial court and comparing each individual State jurisdiction using the effects of gender, age, length of marriage, number of children, and household income as controls. The research presented in this study serves as a solid foundation for further study. While a high variability among the cases was present, the systematic trends presented in the current study provide some empirical basis for making decisions regarding with valuation method (or methods) to propose for consideration to the matrimonial court.

I was invited to present the findings of Output 4 to the New Jersey Society of Certified Public Accountants in May of 2007. I have also been invited to present these findings to three law firms in New Jersey practicing matrimonial law.

3.2d: Summary of Sub-Theme Number 2

The contribution of the research in this sub-theme extends to an enormously broad audience that bond at the intersection of accounting, law, economics, and finance. The reciprocal behavior between forensic accounting experts and the Court is the foundation of the discipline. The manuscripts in this sub-theme addressing these research questions were based upon the same data set.

This stream of research has common threads in which further statistical analysis were carried out and compared to the published results. A series of χ^2 tests of independence were initially conducted comparing each independent variable with indicator variables for each category of valuation method.

Although chi-square testing was my initial methodology, it did not make through the double blind review process. The reviewers recommended that I abandon chi-square testing and adopt a logistic regression. These χ^2 results were similar to the logistic regression models results. For example; χ^2 results for the matrimonial courts and the excess earnings method of valuation were; $\chi^2=13.471$, $p<.001$. Similar results were found for the income method and manufacturing companies $\chi^2=9.925$, $p<.001$. An interesting item to note is that as valuations are presented to the court there are times when more than one valuation method is included in a conclusion of value. This method of reconciling value occurs through a weighted average of more than one valuation method. Moreover, it would have been more appropriate to log the size variable in the logistic estimation in outputs 3 and 4.

The research theme of these outputs remained consistent with my goal of identifying the skills of a forensic accountant and identifying how to use them.

3.3 Sub-Theme Number 3: Valuation considerations as relates to type of corporation: Output 6.

3.3a: Output 6

The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations., *Accounting Horizons*, Volume 22, Number 4, 2008, pp. 415-424.

This study was published in *Accounting Horizons*, one of three association-wide journals published by the American Accounting Association (AAA). This journal seeks to bridge academic and professional audiences with articles that focus on accounting, broadly defined, and that provide insights pertinent to the accounting profession. *Accounting Horizons* publishes papers focusing on the scholarship of integration and application, and serves an audience of researchers, educators, practitioners, regulators, and students of accounting.

Motivation

Output 6 addresses the question of when a premium for S Corporations exists over C Corporations. An S Corporation is a regular corporation that elects to pass through the net income or loss of the company to its shareholders. A C corporation is taxed as a separate business entity. This creates a double tax when a corporation has profits and distributes them to the shareholders. These profits are taxed at the corporate level and then again tax when the shareholder receives a dividend. Special elections under the Internal Revenue Service Code allows a shareholder of an S Corporation to “step up the basis” in the assets. This means the

assets are adjusted to fair market value in the calculation of gain or loss. The streams of literature that provoke this ongoing debate range from insightful theories to transactional evidence.

Since *Gross v. Commissioner*, the case that started this debate in 1999, there has been a gap in the literature identifying whether the post-court case transaction data present valuation differences among S corporations and C corporations. Transaction studies on relative values of S corporations versus C corporations have presented results with limited data for the period subsequent to *Gross v. Commissioner*. Mattson et al. (2002a, 2002b) used transactional information on comparable sales of S corporations and C corporations for the period of January 1991 through March 2002. Both of these studies concluded that there were no valuation differences for S corporations and comparable C corporations.

However, Erickson and Wang (2007) analyzed a fact pattern when an S corporation can command a premium using transaction data from January 1, 1994, through December 31, 2000. The authors identified valuation differences between S corporations and C corporations when the shareholders of an S corporation agree to an Internal Revenue Code (IRC) section 338(h) (10) election.

When intuitively analyzing the body of work that has been introduced on this topic to date, an instinctive question arises: Are the relative values of S corporations versus C corporations dependent on transaction-specific conditions? Output 6 explores this question, and at the same time expands the incremental knowledge base by examining transaction data to investigate whether there are differences in the relative values of S corporations and C corporations from 2000 through 2006.

The Innovation

The literature has revealed noteworthy gaps that warrant further investigation into issues that identify transaction characteristics that can cause an S corporation premium to exist. For Output 6 a moderated multiple regression analysis was used to explore this phenomenon. Interaction variables such as company type by buyer type, company type by transaction type, company type by sales, and buyer type by sales were created to examine the nature of their effects on S corporation and C corporation acquisitions whereas ascertaining any influence these variables may have on the potential of an S corporation premium.

The sample consisted of 4,239 private company transactions from January 2000 through November 2006. The following variables were extracted: sales price (deal/purchase price), net sales of the selling company (net sales), company type (S or C corporation), buyer type (public or private), and transaction type (asset or stock sale). The motivation for this study was to also answer the question; has the market shifted to reflect the decision in *Gross v. Commissioner*.

The analysis model I designed included the actual purchase price as the dependent variable rather than using a valuation multiple. Net sales were included as an independent variable in the regression model. The compelling justification remains in the innate differences between the entities and prior literature. S corporations and C corporations have different motivations relative to net income. A private C corporation has the incentive to distribute the net income to a shareholder in the form of additional salary to avoid double taxation. S corporations have the benefit of a single level of taxation and thus do not have the same concerns.

The moderated multiple regression analysis was carried out in two steps to properly investigate whether a moderating effect did in fact exist. I determined that evidence of a moderating effect would be illustrated by an increase in the model R squared for the second step in the regression.

This research considered factors that previous researchers did not. For example; prior consideration of the buyer type for an S Corporation never appeared in previous literature on the topic. Additionally, the effect of the interaction variables included in this model has not been previously considered or investigated.

The Findings

- The magnitude of the S corporation premium was moderated by the levels of the other independent variables that were included in the model, and indicate that
- the premium is lower when the buyer of the firm is public than when it is private;
- the premium is lower when the transaction type was “Stock” rather than when it is an “Asset” sale; and
- the premium has a direct relationship with Net Sales—firms with higher Net Sales tend to also show a higher premium for being an S corporation.

Summary

This paper presented the results of a moderated multiple regression analysis to show that, all else held equal, there exists a positive premium in the relative valuation of S corporations over C corporations in the period subsequent to the Tax Court rulings that started this debate.

The model also allows for the moderation of this premium by varying different levels of a set of variables.

Theory suggests buyer types (public/private) could play a role in the valuation of S Corporations and C Corporations. The different motivations of a public corporation and a private entity in the acquisition process warrant further investigation naturally due to innate differences and preferences. The most prominent difference that relates to this study are the tax regime differences. C Corporations are subject to double taxation, a tax at the corporate level on the net income and a second to the shareholder when dividends are distributed. Conversely, S Corporations are subject to one level of taxation of net income tax is taxed at the shareholder/owners level of tax.

The type of sales; stock sale or asset sale has been considered in prior research. Mattson Shannon and Upton (2002a, 2002b) found no additional evidence that the type of sale offered any indication of an S Corporation premium. However, Erikson and Wang (2007) found a specific sector of stock sales that suggest an S Corporation premium. Particularly, an Internal Revenue Code (IRC) section 338(h)(10) election was found to provide a premium ranging from 12% to 17% over relative C corporations. A section 338(h)(10) election allows a buyer and a seller to treat a stock sale as an asset sale. This is attractive to a private buyer as well as a public buyer because it allows the assets to be adjusted upward providing a higher depreciation deduction to the acquirer. However, retaining S Corporation status may be a preference for a private buyer and not an option for a public buyer because public corporations are prohibited from electing S status. A 338(h)(10) election is only available to S Corporations.

The acquisition of an S Corporation is attractive to a public buyer. Mattson Shannon and Upton (2002a, 2002b) and Erikson and Wang (2007) found this to be the case at certain target size levels. The reasoning behind this behavior is the larger the assets can be “stepped up” to the larger tax deduction for the acquirer. Larger public companies can be motivated offset corporate income tax by using larger depreciation deductions.

The stage one regression finds a negative coefficient of $-.298$ on company type that can be interpreted as a negative premium of a factor of $1 - \exp(-.298)$ or 25.7%. However, when the interaction variables were entered in the second stage, the R squared increased to 0.805, a change of 0.02, $F(4,4230) = 108.412$ $p < .001$, suggesting that the interactions moderate and add significant explanatory power to the model that was specified in stage 1. To illustrate an estimation of the premium, since price has been transformed into its natural logarithm; assume that the buyer is Private, the transaction involved an Asset sale, and Net Sales are equal to the average in the Data set so the centered natural logarithm of Net Sales would be equal to zero. In this case, the coefficient becomes simply 0.088, which suggests that for this type of firm, when transformed the premium for S corporations is 9.2 percent. Again, bear in mind that this premium can increase or decrease even becoming negative given different buyer types, transaction types, and net sales of the subject company.

The premium is very close to the break-even point at a \$900,000 sales level for a private company involved in an asset sale. A further illustration can be made for a public company acquiring a target in an asset sale; the break-even point approaches at the \$400,000,000 sales level.

However the benefit of ownership of stock in an S corporation is greater to another (necessarily private) S corporation than to a public (necessarily C corporation) since the income from the S corporation is likely to be double taxed in the hands of a C corporation.

The moderator variables included in this model altered the relationship between the other variables. It is a common concern that interaction variables may cause multicollinearity. A technique that reduces or eliminates multicollinearity is to mean center the continuous variables included in the regression equation. This method was performed in this analysis by mean centering the log of net sales. As a result, in the current model the variance inflation factors (VIF) were well below 10 and the tolerance levels were above .2. It is safe to conclude there is no collinearity in the data. In addition, the standard error of the estimate was reduced from 1.10386 to 1.05178 when including the interaction variables.

Aiken & West,(1991), Jaccard & Turrisi (2003) and Aguinis, (2004) have expressed concerns regarding the difficulties associated with the interpretation of regression coefficients in regression models that include interaction variables. However, the literature emphasizes that justifying the inclusion of interaction terms in multiple regression models is based on the possibility that the change in the dependent variable, as one of the independent variables changes, depends on the value of another independent variable. This change may also include a change in coefficient signs.

Additional analysis was performed on the data but not reported in the published paper. Since the focal point of this study was company type it made reasonable sense to include the variable in all possible products. In addition, prior literature motivates the inclusion of sales by buyer type. An additional analysis was performed on the data to test the results against the final

model. The analysis added two additional interaction variables, buyer type by transaction type and transaction type by sales. Both variables were insignificant.

Output 6 concluded by asking the question of how the findings were related to the existence of an S corporation premium, and answered “it depends.” Because truly unique characteristics are associated with circumstances of when an S corporation premium can exist, it may be safe to assume that the value of an S corporation is condition specific. For the value of an S corporation to be properly calculated it appears that an investigation of the facts and circumstances of a particular transaction should occur in the due diligence process of a valuation exercise in a similar manner to other factors that are considered; that is, economic outlook and revenue projections. In addition, it may also be prudent for a range of values for an S corporation to be presented in the face of several valuation scenarios.

I was invited to present the findings from Output 6 at the national conference of the National Association of Certified Valuation analysts, Academic Track in Boston, MA, in May of 2009. Also, this output has been cited in a recent Estate and Gift tax case before the Internal Revenue Service. Law students and graduate students have contacted me for copies of the draft manuscript referring to the findings as a seminal piece of research on the topic. Reception by students, academics and practitioners has been overwhelming. One student commented that when the paper was posted on the American Accounting Association’s website it was “like the release of a Harry Potter book.”

(An editorial note for table1, the parenthesis should be removed.)

3.3b: Summary of Sub-Theme Number 3

This research has made a significant contribution to body of knowledge of the valuation of private companies. The demand for output number 6 has been rapid and extensive.

The requests for output number 6 before publication can only be describe as remarkable. Thanks to research outlets such as the Social Science Research Network (SSRN), a manuscript can get to the public much more efficiently. In the case of output 6, it became apparent of how special this study was when I removed the manuscript from SSRN, and left the abstract due to the acceptance of the article in Accounting Horizons. I received numerous e-mails that ranged from accounting professors seeking to use the article for a course in contemporary issues in accounting, a practitioner preparing a case before the United States Department of the Treasury, a law student studying mergers and acquisitions, and a request from the publishing giant CCH for an interview regarding my findings. This study continued in the consistent theme that focused on the valuation of privately held companies, identifying the skills of a forensic accountant and identifying how to use them.

4. Concluding Statement

This research will contribute to a broad audience that includes educators, practitioners, regulators and the related stakeholders such as attorneys and the court. This research is not based on information pulled from a singular large standard database, but involves directed and applied research towards actual outcomes, opinions and beliefs of those involved in forensic accounting, valuation and related aspects of the field. This concludes the body of work presented in this thesis.

The theme of this journey is, **in the context of valuations of privately held companies, identifying the skills of a forensic accountant, and how to use them.** Original instrumentation and datasets were created to assist in obtaining meaningful and applicable outcomes for theory and practice. The work and outcomes presented in this body of work have contributed significantly to the discipline of forensic accounting relating to its role in private company valuation.

Table 1 shows the type of outlet and authorship of the 6 outputs included in this thesis. In addition, total citations are also included. The majority of the publications included are recent and, downloads are, therefore a far more appropriate indicator of contribution and influence than citations at this time.

Table 1. Form of Output

Published in:	Refereed Academic Journal	Invited Conference Presentations	Citations	Downloads
Sole authored	6	7	19	744

The six outputs were created in order to fill a void in the current literature and present new findings into the public domain. The natural result of this research is to advance the knowledge of my fellow academics as they make use of my research for the benefit students. The research represents a consistent theme of advancing the discipline of forensic accounting. The work presented in this thesis represents a sector of my overall output. I have published a total of 30 peer reviewed publications as of the current date. In addition, there are 5 additional outputs that have been accepted in peer reviewed journals and will be published in the foreseeable future.

All six publications have made a contribution to knowledge. The same is true for much of my research outputs. For example, the book; "Forensic Accounting in Matrimonial Divorce" (2005), I am the editor and co-author of this peer reviewed book. West Virginia University received a grant from The United States Department of Justice to create a model academic curriculum for Forensic Accounting. "Forensic Accounting in Matrimonial Divorce" has been selected as a recommended text for use in the model forensic accounting curriculum developed by West Virginia University. This text has been cited over 10 times in various Law Reviews, books, and related Journals. The popularity has been so vast a second volume will be published by this year end.

Table 2 presents a summary of the contribution to knowledge of each of the six outputs included in this thesis along with the citations they have received according to searches in Google Advanced Scholar, Lexis-Nexis, and a general World Wide Web search. In addition, the relevance of downloads in today's electronic environment is an additional indicator of the demand for the research. Accordingly, download data is also included in the table.

Table 2: Summary of the Contributions to Knowledge, Citations and Downloads of the 6 Outputs

Output	Published	Title Contribution to Knowledge Originality <i>3rd Party Recognition</i>	Citations Location of cite authors Year of latest citation	Downloads Electronic depository Year of Latest Downloads
1	2006	<p><i>An Empirical Walk Down Valuation Way. Are Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and Level of Court?</i></p> <ul style="list-style-type: none"> • First paper to identify systematic trends of whether valuation methods of private companies are a function of type of case and level of court. In addition, macro-economic factors need to be attended to. Legal precedent in private company pricing is of significant concern to the academic disciplines of accounting, economics, and finance. <p>I was the first researcher I know of to explore judicial</p>	<p>4</p> <p>United States</p> <p>Korea</p> <p>2009</p>	N/A

		<p>valuation of private companies.</p> <p>3rd Party Recognition</p> <p><i>I was invited by the New Jersey Society of Certified Public Accountants to present these findings in May, 2007.</i></p>		
2	2006	<p><i>The Pancake Palace: A Case Study in Business Interruption from the Defense Side.</i></p> <ul style="list-style-type: none"> • The case illustrates the use of Forensic Accounting skills in the investigation of a commercial damages loss. <p>This is the first teaching case study on commercial damages using investigative techniques.</p> <p>3rd Party Recognition</p> <p><i>This case has been used by professors teaching Forensic Accounting in at least three universities, including Florida Atlantic University.</i></p>	N/A	<p>190</p> <p>Berkeley Electronic Press (U.S.) 2009</p> <p>27</p> <p>LogEc/RePec (Sweden)</p> <p>2009</p>
3	2007	<p><i>Do Court Preferences for</i></p>	1	<p>230</p> <p>Berkeley Electronic Press</p>

		<p><i>Valuation Approaches of Closely Held companies Vary by Industry?</i></p> <ul style="list-style-type: none"> Results suggest that income approaches are preferred for manufacturing companies and less popular for service and holdings companies. There was a lack of guidance on this topic from an academic perspective. <p>This was the first research to merge legal precedent and systematic trends with private company valuation approaches.</p> <p><i>3rd Party Recognition</i></p> <p><i>I was invited by the New Jersey Society of Certified Public Accountants to present these findings in May, 2007</i></p>	<p>United States 2007</p>	<p>(U.S.) 2009</p> <p>19 LogEc/RePec (Sweden) 2009</p>
4	2007	<p><i>To have and To Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the</i></p>	<p>3 United States 2009</p>	<p>N/A</p>

		<p><i>Matrimonial Courts.</i></p> <ul style="list-style-type: none"> • This research provides empirical guidance for the broad audience that includes; litigants, attorneys, experts, financial planning practitioners, and academics. • Among its findings were that there was significant preference of the matrimonial court for the excess earnings method over the income method. I am not aware of any previous literature making this point. <p>This was the first empirical study I know of that looked at the preference of specific valuation methods in the matrimonial court.</p> <p><i>3rd Party Recognition</i></p> <p><i>I was invited to present the findings to the New Jersey Society of Certified Public Accountants in May, 2007.</i></p> <p><i>In addition, I have been</i></p>		
--	--	---	--	--

		<i>invited to present this research by three different law firms in New Jersey.</i>		
5	2008	<p><i>An Empirical Investigation of the Relevant Skills of a Forensic Accountant.</i></p> <ul style="list-style-type: none"> • The findings illustrate the agreement between accounting academics, accounting practitioners and users of forensic accounting services of what the relevant skills of a forensic accountant are. The results of these findings directly contribute to the development of courses in forensic accounting by indicating which skills are the necessary outcomes of the curriculum. <p>This was the first empirical study to identify the relevant skills for a forensic accountant.</p> <p>3rd Party Recognition</p> <p>The Educational Resource Information Center (ERIC)</p> 	<p>1</p> <p>United States</p> <p>2009</p>	

		<i>has recognized this article as a valuable piece of educational literature by including it in their indexed database. (ERIC articles are indexed in their database selectively for education researchers, teachers, librarians and education policy makers.)</i>		
6	2008	<p><i>The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations.</i></p> <ul style="list-style-type: none"> • The paper shows that the magnitude of the S Corporation premium is dependent upon the level of the moderator variables. In doing so, it redefines the long debate surrounding the topic of S Corporation and C Corporation Valuations. • Redefining research on the recognition of tax differentials that are 	<p>10</p> <p>United States United Kingdom</p> <p>2009</p>	<p>278</p> <p>Social Science Research Network</p> <p>2009</p> <p>When the paper was posted on the American Accounting Association's web site, a graduate student commented that it was, "like the release of a Harry Potter book."</p>

		<p>reflected in valuation differences.</p> <p>This was the first paper in the stream of research that considered that the price of an S Corporation may be dependent on other factors such as who the buyer is. In addition, this was the first paper to consider that the price of S Corporations may change as one of the independent variable changes depend on the value of another independent variable. This effect was captured in the interaction variables such as, company type by buyer type, company type by transaction type, company type by sales and buyer type by sales. This was the first study to include these types of product variables.</p> <p><i>3rd Party Recognition</i></p> <p><i>I have been invited to present this research at the National Association of Certified Valuation</i></p>		
--	--	--	--	--

		<i>Analysts, Academic Track in Boston, MA (May, 2009). The paper has been cited in recent Estate & Gift tax cases before the Internal Revenue Service.</i>		
--	--	---	--	--

It is my belief that I have made a significant contribution to knowledge as a result of the six outputs included in this thesis. The explanations that are presented exhibit and corroborate this position. Accordingly, I believe I have met the conditions for the award of Doctor of Philosophy by Public Works.

5. References

- Astrachan, J.H. and Shanker, M.C. (2003). Family businesses' contribution to the U.S. economy: A closer look. *Family Business Review*, 16(3) pp. 211-219.
- Beatty, R. P. Riffe, S. M. and Thompson R. (1999). The method of comparables and tax court valuations of private firms: An empirical investigation. *Accounting Horizons*. September. 13(3) pp. 177-199.
- Cressey, D.R. (1953). *Other People's Money: A Study in the Social Psychology of Embezzlement*. Glencoe, IL. Free Press.
- Crumbley, L.D., Heitger, L.E., Smith, G.S. (2005) . *Forensic and Investigative Accounting*. (2nd ed.). Chicago, IL: CCH Incorporated.
- Crumbley, D.L., Heitger, L.E. and, Smith, G.S. (2007). *Forensic and Investigative Accounting*. (3rd ed.) Chicago: Commerce Clearing House.
- Dicksee, L.R. (1905). *Auditing: A Practical Manual for Auditors*. Authorized American Edition. New York.
- DiGabriele, J.A. (Editor). (2005). *Forensic Accounting in Matrimonial Divorce*. R.T. Edwards. Philadelphia, PA.
- Elsevier (2009) [http:// www.elsevier.com/wps/find/journals](http://www.elsevier.com/wps/find/journals)
- Erickson, M. M. and Wang S. (2006). Tax Benefits as a Source of Merger Premiums in Acquisitions of Private Companies. *The Accounting Review*. 82(2) pp. 359-387.
- Galbraith, C.S. (2003). Divorce and the Financial Performance of Small Family Business: An Exploratory Study. *Journal of Small Business Management*, 41(3) pp. 296-309.
- Gaughan, P.A. (2004). *Measuring Business Interruption Losses and Other Commercial Damages*. Hoboken, NJ: John Wiley & Sons, Inc.
- Golden, T.W., Skalak, S.L., Clayton, M.M. (2005) *A Guide to Forensic Accounting Investigation*. Hoboken, NJ: John Wiley & Sons, Inc.
- Gross v. Commissioner of Internal Revenue Service. (1999). *T.C. Memo*, p. 254.

- Fullerton, R.F., Durtschi, C. (2004). *The Effect of Professional Skepticism on the Fraud Detection Skills of Internal Auditors*. pp. 1-38. Working paper retrieved from Social Science Research Network database.
- LeClair, M. (1990). Valuing the closely held corporation: The validity and performance of established valuation procedures. *Accounting Horizons*. September: Volume (Number) pp. 31-42.
- Lieberman, M. B., Montgomery, D. B. (1998) First-Mover Advantages. *Strategic Management Journal*. Volume 9, pp. 41-59.
- Mattson, M.J. and, Shannon, D.S., (2002). S Corporation Values same as C Corporations. *Business Valuation Update*. Part 1. November. Volume 8(11) pp. 1-5.
- Mattson, M.J., Shannon, D.S., and Upton, D.E. (2002). S Corporation Values same as C Corporations. *Business Valuation Update*. Part 2. December. Volume 8(12) pp. 1-4.
- McGuire, B.L. and Jost E. (2006) Forensic Accountants: Financial Investigators. *Journal of Business & Economics Research*. Volume 4(2) pp. 1-6.
- Rezaee, Z., Crumbely, L. D., & Elmore, R. C.(2006). Forensic accounting education: A survey of academicians and practitioners. *Advances in Accounting Education*. Manuscript in preparation.
- Whetten, D.A. (1989) What Constitutes a Theoretical Contribution? *Academy of Management Review*. Volume 14, Number 4, Pages 490-495.
- Yukl, G., 2006, *Leadership in organizations*, sixth edition, Prentice Hall: Upper Saddle River, NJ

6. List of Total Publications and Presentations

Publications

(The publications highlighted and in bold are those submitted for the award of PhD by public works)

1. DiGabriele, J.A. (2009). Core Components in Estimating Economic Damages. *The CPA Journal*, Volume 79, Number 2, pp. 60-64.
2. **DiGabriele, J.A. (2008). The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations. *Accounting Horizons*, Volume 22, Number 4, pp. 415-424.**
3. DiGabriele, J.A. (2008). The Sarbanes-Oxley Act and the private company discount: An Empirical Investigation. *Critical Perspectives on Accounting*, Volume 19, Issue 8, pp. 1105-1121
4. **DiGabriele, J.A. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, Volume 83, Number 6, pp. 331-338.**
5. DiGabriele, J.A. & Simoes G.V. (2008). Understanding a Financial Expert's Credentials: A Practical Guide for Attorneys. *The New Jersey Lawyer*, Volume 17, Number 40, pp. 1-3.
6. DiGabriele, J.A. (2008). Determining the Premium Paid in S Corporation Acquisitions: A Predictive Model. *Business Valuation Alert*, Volume 9, Number 3, pp. 1-4
7. DiGabriele, J.A. (2008). Forensic Accounting and The Marital Life Style Analysis. *The Journal of Forensic Accounting*, Volume IX, Number 1, pp. 193-198.
8. DiGabriele, J.A. (2008). Litigation Support and the Forensic Accountant: Assembling a Defensible Report. *The Forensic Examiner*, Volume 17, Number 2, pp. 82-86
9. Filler, M.G. & DiGabriele, J.A. (2008). Short-Term Sales Forecasting Using a Seasonal Adjustment Model. *Valuation Strategies*, Volume 11, Number 5, pp. 6-17.

10. DiGabriele, J.A. (2008). The Adversarial Bias of Accounting Experts in Financial Litigation: An Empirical Analysis of Compromised Objectivity in Accounting Expert Testimony. *Journal of Accounting, Ethics & Public Policy*, Volume 8, Number 1, pp. 1-22.
11. DiGabriele, J.A. & Simoes, G.V. (2007). Lessons Learned From the Med Diversified Case. *The Value Examiner*, November/December 2007, Article 1, pp. 20-25.
12. DiGabriele, J.A. & Simoes, G.V. (2007). The Forensic Accountant: An anatomical look at the art and science. *New Jersey Lawyer*, October, Volume 16. Number 42, pp. 1-5.
13. **DiGabriele, J.A. (2007). To Have and to Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court. *Journal of Forensic Accounting*, Volume 8, Number 1 & 2, pp. 397-408.**
14. DiGabriele, James A. & Filler, Mark G. & (2007). How to Read, Understand, and Interpret Excel's Regression Output. Part V. *FOCUS. American Institute of Certified Public Accountants*. Business Valuation and Forensic & Litigation Support Services Section, Volume 3, Number 4, pp. 5-9.
15. Filler, Mark G. & DiGabriele, James A. (2007). The Application of Regression Analysis to the Direct Market Data Method, Part IV. *FOCUS. American Institute of Certified Public Accountants*, Business Valuation and Forensic & Litigation Support Services Section, Volume 3, Number 3, pp. 1-6.
16. **DiGabriele, James A. (2007). Do Court Preferences for Valuation Approaches of Closely Held Companies Vary by Industry? *Journal of Business Valuation and Economic Loss Analysis*, Volume 2, Number 1, Article 5, pp. 1-20.**
17. DiGabriele, James A. & Simoes, Gabriela V. (2007). Forensic Accounting: The Nature of the Engagement. *The Value Examiner*, Article 1, pp. 7-12.
18. Filler, Mark G. & DiGabriele, James A. (2007). The Application of Regression Analysis to the Direct Market Data Method, Part III. *FOCUS, American Institute of Certified Public Accountants*. Business Valuation and Forensic & Litigation Support Services Section, Volume 3, Number 2, pp. 1-6

19. DiGabriele, J.A., (2006). Divorce and the Self-Employed Meet Economic Reality. *Journal of Forensic Accounting*, Volume 7, Number 2, pp. 38-44.
20. Filler, Mark G. & DiGabriele, James A. (2006). The Application of Regression Analysis to the Direct Market Data Method, Part II. *FOCUS. American Institute of Certified Public Accountants. Business Valuation and Forensic & Litigation Support Services Section*, Volume 2, Number 6, pp. 1-6
21. DiGabriele, James A. (2006). The Forensic Accountant: What Makes a Good One? *The New Jersey Lawyer*, 4, Volume 15, Number 48, pp. 8-14.
22. DiGabriele, James A. & Filler, Mark G. (2006). The Application of Regression Analysis to the Direct Market Data Method, Part I. *FOCUS. American Institute of Certified Public Accountants. Business Valuation and Forensic & Litigation Support Services Section*, Volume 2, Number 5, pp. 6-10.
23. **DiGabriele, James A. (2006). The Pancake Palace: A Case Study in Business Interruption from the Defense Side. *Journal of Business Valuation and Economic Loss Analysis*, Volume 1, Number 1, Article 5, pp. 1-10**
24. **DiGabriele, James A. (September, 2006). An Empirical Walk Down Valuation Way: Are the Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and Level of Court? *The Journal of Legal Economics*, Volume 13, Number 3, pp. 39-64.**
25. DiGabriele, James A. (Spring 2006). A Primer In Valuing Closely Held Companies Using The Market Approach and Regression Analysis: Not All Variables and Industries Are Created Equal. *CPA Expert*, Volume 11, Number 4, pp. 6-10.
26. DiGabriele, James A. & Gottesman Aron A. (June 2006). Changes in Energy Sector Valuation Multiples Following the Enron Collapse: An Empirical Investigation. *Oil, Gas & Energy Quarterly*, Volume 54, Number 4, pp. 743-759.
27. DiGabriele, James A. & Simoes, Gabriela V. (January 2005). "Do Court Preferences Exist in Cases of Matrimonial Dissolution Involving the Valuation of Closely Held Companies?" *Forensic Accounting in Matrimonial Divorce*, Chapter 12, R.T. Edwards, Inc., Philadelphia, PA. pp. 179-192.

28. DiGabriele, James A. (November 2004) "Dissecting the Forensic Accountant." *Global Finance Letter, The Lubin School of Business, Pace University*, pp. 10-14.
29. DiGabriele, James A. (2003). A Valuation Dilemma: Are S Corporations Worth More Than Otherwise Identical C Corporations? *The Forensic Examiner*, Volume 12, Number 11 & 12, pp. 35-39.
30. DiGabriele, James A. & Eisner, Alan B. (2003). Putting the "E" Back in P/E Ratios. *The Valuation Examiner*, pp. 24-28.

Forthcoming peer reviewed publications

DiGabriele, J.A. (2009) Implications of Regulatory Prescriptions & Audit Standards on the Evolution of Forensic Accounting in the Audit Process. *Journal of Applied Accounting Research*.

DiGabriele, J.A. (2009) Gender, Valuation of Private Companies, and State Specific Variables in the Division of Marital Assets. *Journal of Legal Economics*.

Seminar/Presentations

May 2009, Presentation to the National Association of Certified Valuation Analysts nation conference academic track. Presentation to include research on two manuscripts; The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations and The Sarbanes-Oxley Act and the private company discount: An Empirical Investigation.

January, 2009. Presentation at Kreinces Rollins & Shanker, Certified Public Accountants & Consultants. Presentation description: Illustration of practical application of predictive premium model in research titled; The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations.

December 2008. Panel Member Presentation to New Jersey Chapter of National Association of Certified Valuation Analysts. Topic: Current Trends, Fair Value, FASB 157, FASB, 141 & 142.

November 2008. Presentation to the New York State Society of Certified Public Accountants on Forensic Accounting.

September 2008. Presentation to New Jersey Association of Public Accountants on Forensic Accounting and Valuing Closely Held Companies.

May, 2007. Presentation on Systematic Trends in Court Choices for Valuation Methods of Closely Held Companies, to New Jersey Society of Certified Public Accountants Business Valuation and Litigation Support Roundtable.

May 2006, Doctoral Research Colloquium at Pace University, Lubin School of Business. Presentation of research in progress; "Sarbanes Oxley and the Private Company Discount."

April, 2006. Presentation on forensic accounting at the Montclair State University Accounting Society Symposium.

October 2004. Continuing Professional Education Seminar for Special Investigation Unit of Prudential Property & Casualty Insurance Company titled: "Everything You Need To Know About Checks Under the New Check 21 Rules." Focus on the discussion of banking check fraud and the new Check 21 Rules.

November 2003. Continuing Professional Education seminar for insurance claims supervisors and adjusters titled: "Business Interruption Demystified." Emphasized common errors in assumptions, calculations and theory of business interruption claims and proper valuation.

October 2003. Continuing Professional Education presentation for the New Jersey Special Investigators Association at their Annual Seminar titled: "Forensic Accounting Investigations." Highlighted financial investigations for over 180 Investigators in two separate sessions.

December 2001. Seminar presentation to property casualty supervisors, adjusters and in house attorneys of Allstate Insurance titled: "Economics Loss Valuation." The seminar was an overview of personal injury economics damage claims with an integration of business interruption, inventory losses and employee thefts.

7. Completed Submitted Publications

7.1 List of Submitted Publications

1. DiGabriele, James A. (September, 2006). An Empirical Walk Down Valuation Way: Are the Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and Level of Court? *The Journal of Legal Economics*, Volume 13, Number 3, pp. 39-64.
2. DiGabriele, James A. (2006). The Pancake Palace: A Case Study in Business Interruption from the Defense Side, *Journal of Business Valuation and Economic Loss Analysis*: Volume. 1, Number 1, Article 5, pp. 1-10.
3. DiGabriele, James A. (2007). Do Court Preferences for Valuation Approaches of Closely Held Companies Vary by Industry? *Journal of Business Valuation and Economic Loss Analysis*: Volume 2, Number 1, Article 5, pp. 1-20.
4. DiGabriele, J.A. (2007). To Have and to Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court. *Journal of Forensic Accounting*, Volume 8, Number 1 & 2, pp. 397-408
5. DiGabriele, J.A. (2008). An Empirical Investigation of the Relevant Skills of Forensic Accountants. *Journal of Education for Business*, Volume. 83, Issue 6. pp. 331-338.
6. DiGabriele, J.A. (2008). The Moderating Effects of Acquisition Premiums in Private Corporations: An Empirical Investigation of Relative S Corporation and C Corporation Valuations. *Accounting Horizons*, Volume 22, Number 4, pp. 415-424.